

What is claimed is:

1. A method of managing a network which is for use in a network using SNMP(Simple Network Management Protocol) between a network management device for managing the network and a management object device connected to the network management device through the network to be managed thereby, said method comprising the steps of:

compressing a data portion of an SNMP packet transferred between said network management device and said management object device by a predetermined compression algorithm to transmit the SNMP packet including the compressed data portion; and

decompressing said compressed data portion of said SNMP packet by said predetermined compression algorithm to carry out a predetermined processing on the SNMP packet.

2. A method as claimed in claim 1, wherein said network management device memorizes a plurality of said management object devices to which said predetermined compression algorithm is applicable, respectively, in a table, said network management device compressing only said SNMP packet directed to the management object device to which said predetermined compression algorithm is applicable and which is memorized in said

table to form a transfer packet to be transmitted.

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3. A method as claimed in claim 1, wherein a bit "1" is set on a predetermined bit position of a packet tag showing a kind of a packet to be formed in a case that said data portion has been compressed by said predetermined 5 compression algorithm, and wherein a bit "0" is set on the predetermined bit position of the packet tag showing a kind of a packet to be formed in the other case.

4. A network management system which is for use in a network using SNMP(Simple

Network Management Protocol) between a network management device for managing the network and a 5 management object device connected to the network management device through the network to be managed thereby, comprising:

a packet which is transferred between said network management device and said management object device 10 and which has a bit position for setting a compression indicating bit showing that said packet has been compressed by a predetermined compression algorithm; said network management device including:

a table for memorizing whether or not said 15 predetermined compression algorithm is applicable to said management object device;

a compression/decompression processing section which investigates, by said table, whether or not said

predetermined compression algorithm is applicable to  
20 said management object device as a transmission  
destination, when SNMP packet is transmitted from said  
network management device; said  
compression/decompression processing section  
compressing said packet with said compression indicating  
25 bit being set on said bit position, when said  
predetermined compression algorithm is applicable to  
said management object device as said transmission  
destination; said compression/decompression processing  
section decompressing said packet, when said  
30 compression indicating bit is set on said bit position of  
SNMP packet received from said management object  
device; and

a communication processing section which adds a  
predetermined header to said SNMP packet to form a  
35 transfer packet; said transfer packet being transmitted  
to a transmission destination; said communication  
processing section extracting said SNMP packet from a  
received transfer packet; said communication processing  
section transmitting the extracted SNMP packet to said  
40 compression/decompression processing section, when said  
compression indicating bit is detected from said bit  
position of the extracted SNMP packet.

5. A network management system as claimed in claim 4,  
wherein said management object device including:  
a communication processing section which is connected to

the network management device through the network and  
5 which adds a predetermined header to said SNMP packet  
generated in said management object device to form a  
transfer packet; said transfer packet being transmitted  
to a transmission destination through the network; said  
communication processing section extracting said SNMP  
10 packet from a transfer packet received through the  
network; said SNMP packet being transmitted to an  
internal of said management object device; and

15 a compression/decompression processing section  
which compresses SNMP packet directed to said network  
management device with said compression indicating bit  
being set on said bit position; said  
compression/decompression processing section  
decompressing said SNMP packet, when said compression  
indicating bit is set on said bit position of SNMP packet  
20 received from said management object device.

6. A network management system as claimed in claim 5,  
wherein said communication processing section transmits  
said extracted SNMP packet to said  
compression/decompression processing section, in a case  
5 that said compression indicating bit is set on said bit  
position of the extracted SNMP packet, said  
communication processing section canceling said received  
packet in the other cases.